

LCLS Magnet Database PV Attributes

LCLS Magnet Database Channel Attributes

[IOC PV Lists](#)
[Database Naming Conventions](#)

Table 1.1 is a subset of most commonly used EPICS PV name attributes. For a complete lists see Table 1.2 below.

Table 1.0	
EPICS PV Name	SLC Name
<Primary>:<Area>:<Position>: <Attribute>.	<Micro>.<Primary>.<Unit>. <Secondary>

Table 1.1			
EPICS PV Name	Purpose	Units	Range
<Magnet>:IN20:<Position>:BDES	Magnet B field control	kg-m	BDES.LOPR-BDES.HOPR
<Magnet>:IN20:<Position>:CTRL	Magnet Function	numeric	1=TRIM,2=PERTURB
<Magnet>:IN20:<Position>: BCTRL	Set B field and immediately Perturb; updates BDES	kg-m	BCTRL.LOPR-BCTRL. HOPR
<Magnet>:IN20:<Position>:BACT	Readback; actual value of B	kg-m	BACT.LOPR-BACT.HOPR

Table 1.2		
EPICS PV Attribute	SLC Secondary	Description
HSTA	HSTA	Control Bits
STAT	STAT	Status Bits
TRIMTOD.TIME	TTIM	Last trim time
TRIMTRYCNT	ITRY	1. of attempts required for trim
TRIMENABLE	-	1=Trim enabled
CTRL	-	Control Request - magnet function
STATUS	-	Status of Control Action
HSTACTRL	-	Translates SLC HSTA to individual EPICS records
BDES	BDES	Desired B field Value
BCTRL	-	Set B field value, then perturb; updates BDES
BACT	BACT	Physical Units val converted from IACT
BMON	BMON	Physical Units val converted from IMON
BCTRL.DRVH	BMAX	Maximum Desired Value, B field
IDES	IDES	Desired Control Value (amperes)
IACT	IACT	Control Value from Hardware (Primary)
IMON	IMON	Control Value from Hardware (Secondary)
IRIPL	RIPL	Ripple Current Readback
IDAC	DACV	DAC Readback
ICTRL.DRVH,DRVL	IMMO	Control Limits
IACT.HIHI, LOLO	IMMS	Standardization, Calib Control Limits
POLYCOEF.A to L	IVBU	Polynomial Coefficients
POLYCOEF.A to L	IVBD	Same as IVBU
STDZDIRECTION	-	UP/DOWN direction of standardization
IACTPREVOK	IPRV Last Good Readback	

BDELTAS.B	TOLS(1)	Warning Delta
BDELTAS.C	TOLS(2)	Warning Fraction
BACT.ADEL	TOLS(3)	Alarm Delta
BDELTAS.E	TOLS(4)	Alarm Fraction
BDELTAS.F	TOLF	Monitor Fraction
IACT.ADEL	ATOL(1)	Standardization Delta
IDELTAS.C	ATOL(2)	Standardization Fraction
STDZIMAX or IDES. HIGH	IMAX	Max or min current during standardization
STDZTOD.TIME	KTIM	Last successful standardization time
STDZLOSTTOD.TIME	ZTIM	Last time standardization lost
BDELTAS.F	TOLF	Monitor Fraction
IACT.ADEL	ATOL(1)	Standardization Delta
IDELTAS.C	ATOL(2)	Standardization Fraction
STDZIMAX	IMAX	Max or min current during standardization
STDZTOD.TIME	KTIM	Last successful standardization time
STDZLOSTTOD.TIME	ZTIM	Last time standardization lost
STDZENABLE	-	1=Standardize enabled
BDELTAS.F	TOLF	Monitor Fraction
IACT.ADEL	ATOL(1)	Standardization Delta
IDELTAS.C	ATOL(2)	Standardization Fraction
CALBTOD.TIME	CTIM	Last successful calibration time
CALBOK	-	1=Calibration successful
NOCONTROL	-	1=Can't control this magnet; 0 otherwise
FBCKCONTROL	-	1=Magnet under feedback control
INSERVICE	-	1=in service